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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/541,897	07/07/2005	Jeong-Hwan Lee	ABS-2000 US	6239

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EXAMINER	
NGUYEN, LAUREN	
ART UNIT	PAPER NUMBER
2871	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/20/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/541,897	LEE ET AL.	
	Examiner	Art Unit	
	Lauren Nguyen	2871	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 July 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *07/07/2005*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted was filed on the mailing date of the instant application on 07/07/2005. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Drawings

3. The drawings are objected to under 37 CFR 1.83(a) because they fail to show *the conventional LCD apparatus* as described in the specification (pages 1 and 2). Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after

the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. **Claims 1, 4, 6, 8** are rejected under 35 U.S.C. 102(e) as being anticipated by **Sekiguchi et al. (U.S. Patent Number 6,577,361)**.

6. With respect to **claim 1**, as shown in figures 1-6, **Sekiguchi et al.** discloses a backlight assembly (31) comprising: a light generating part (32, figure 2) that generates a light; a light controlling part (33) that controls the light generated from the light generating part; and a light condensing part (see at least column 12, lines 61-65) integrally formed with the light controlling part so as to condense the controlled light.

7. With respect to **claim 4**, as applied to **claim 1** above and shown in figures 1-6, **Sekiguchi et al.** discloses the light controlling part comprises a light diffusion plate diffusing the light (33, figure 2), and the light condensing part comprises a brightness enhancement sheet that condenses the light (see at least column 12, lines 61-65).

8. With respect to **claim 6**, as shown in figures 1-6, **Sekiguchi et al.** discloses an LCD apparatus comprising: an LCD panel including an upper substrate (2, figure 2), a lower substrate (5) and a liquid crystal layer (15) interposed between the upper and lower substrates; and a backlight assembly (31) including a lamp (32) that generates a light for the LCD panel, a light controlling part (33) that controls the light generated from the lamp, and a light condensing part (see at least column 12, lines 61-65) integrally formed on the light controlling part so as to condense the light.

9. With respect to **claim 8**, as applied to **claim 6** above and shown in figures 1-6, **Sekiguchi et al.** discloses a polarizer (25, figure 2) disposed under the lower substrate (5) to transmit a portion of the light generated from the backlight assembly, and a reflective polarizing film (22, see at least column 12, lines 55-61) integrally formed under the polarizer (25) to transmit a portion of the light and to reflect a remaining portion of the light.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

11. **Claims 2-3 and 7** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Sekiguchi et al. (U.S. Patent Number 6,577,361)** in view of **Sakuramoto et al. (U.S. Patent Number 6,369,945)**.

12. With respect to **claims 2 and 3, Sekiguchi et al.** discloses the limitations as shown in the rejection of **claim 1** above. **Sekiguchi et al.** does not disclose the limitation of **claims 2 and 3**.

However, **Sakuramoto et al.**, in at least column 7, lines 32-34, column 8, lines 29-36, and column 9, lines 26-31, figure 3, discloses an adhesive layer (2) disposed between the light controlling part (1) and the light condensing part (3) so as to laminate the light condensing part with the light controlling part and the adhesive layer comprises an acryl resin (see at least column 10, lines 45-48).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the adhesive layer of **Sekiguchi et al.** with the teaching of **Sakuramoto et al.** because such modification would prevent the films from shifting and foreign substances from coming into each interface (see at least column 7, lines 55-60).

13. With respect to **claim 7, Sekiguchi et al.** discloses the limitations as shown in the rejection of **claim 1** above. **Sekiguchi et al.** does not disclose the limitation of **claims 7**.

However, **Sakuramoto et al.**, in at least column 7, lines 32-34, column 8, lines 29-36, and column 9, lines 26-31, figure 3, discloses an adhesive layer (2) disposed between the light controlling part (1) and the light condensing part (3) so as to laminate the light condensing part with the light controlling part.

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the adhesive layer of **Sekiguchi et al.** with the teaching of **Sakuramoto et al.** because such modification would prevent the films from shifting and foreign substances from coming into each interface (see at least column 7, lines 55-60).

14. **Claim 5** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Sekiguchi et al. (U.S. Patent Number 6,577,361)** in view of **Oda et al. (U.S. Publication Number 2003/0063234)**.

15. With respect to **claim 5**, **Sekiguchi et al.** discloses the limitations as shown in the rejection of **claim 4** above. **Sekiguchi et al.** does not disclose the limitation of **claim 5**.

However, **Oda et al.**, in at least paragraph 0043, lines 3-6, figure 2, discloses the brightness enhancement sheet comprises a prism shape including a rounded ridge.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the prism of **Sekiguchi et al.** with the teaching of **Oda et al.** because such modification would eliminate the occurrence of a brighter area at the center of the light exit surface and thus, achieve a high-quality backlight without uneven luminance distribution (see at least paragraph 0043, lines 12-15).

16. **Claims 9 and 10** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Sekiguchi et al. (U.S. Patent Number 6,577,361)** in view of **Ohkawa (U.S. Patent Number 6,339,458)**, further in view of **Yeh et al. (U.S. Patent Number 6,429,915).**

17. With respect to **claim 9**, as shown in figures 1-6, **Sekiguchi et al.** discloses an LCD apparatus comprising: an LCD panel including an upper polarizer (21, figure 2) having a first polarizing axis (21a, figure 3), an upper substrate (2) disposed under the upper polarizer (21), a lower substrate (5) combined with the upper substrate (2) so as to interpose a liquid crystal layer (15) between the upper and lower substrates, a lower polarizer (25) disposed under the lower substrate (5) to have a second polarizing axis (25a), and a reflecting polarizing film integrally formed under the lower polarizer (22, see at least column 12, lines 55-61); and a backlight assembly (31) including a lamp (32) that generates a light for the LCD panel, a light diffusion plate (33) diffusing the light generated from the lamp, a brightness enhancement sheet (see at least column 12, lines 61-65) integrally formed with the light diffusion plate so as to condense

the diffused light, and a reflecting plate (34) disposed under the lamp so as to reflect the light generated from the lamp into the light diffusion plate.

Sekiguchi et al. discloses the limitations as shown in the rejection of **claim 9** above. **Sekiguchi et al.** does not disclose a protection sheet disposed on the brightness enhancement sheet so as to prevent the breakage of the LCD panel and a second polarizing axis of the second polarizer being substantially perpendicular to the first polarizing axis of the first polarizer.

However, **Ohkawa** in at least column 4, line 53-55, figures 1 and 2, discloses a protection sheet disposed on the brightness enhancement sheet (5) so as to prevent the breakage of the LCD panel; and **Yeh et al.**, in at least column 5, line 33-36, figures 3 and 4, discloses a second polarizing axis of the second polarizer being substantially perpendicular to the first polarizing axis of the first polarizer.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the LCD device of **Sekiguchi et al.** with the teachings of **Ohkawa** and **Yeh et al.** because such modification would prevent the prism sheet from being damage and make the reflective appearance of edges or the like less conspicuous (see at least column 4, lines 55-59; **Ohkawa**); and improve image contrast and gray scale at off-normal viewing angles (see at least column 6, lines 1-3).

18. With respect to **claim 10**, as applied to **claim 9** above and shown in figures 1-6, **Sekiguchi et al.** discloses a first adhesive layer disposed between the reflecting polarizing film (22, figure 2) and the lower polarizer (25) so as to laminate the reflecting polarizing film with the lower polarizer (see at least column 12, lines 56-60).

19. **Claim 11** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Sekiguchi et al. (U.S. Patent Number 6,577,361), Ohkawa (U.S. Patent Number 6,339,458), Yeh et al. (U.S. Patent Number 6,429,915)** and further in view of **Sakuramoto et al. (U.S. Patent Number 6,369,945)**.

20. With respect to **claim 11**, the combination of **Sekiguchi et al. / Ohkawa / Sakuramoto et al.** discloses the limitations as shown in the rejection of **claim 9** above. The combination of **Sekiguchi et al. / Ohkawa / Sakuramoto et al.** does not disclose the limitation of **claim 11**.

However, **Sakuramoto et al.**, in at least column 7, lines 32-34, column 8, lines 29-36, and column 9, lines 26-31, figure 3, discloses a second adhesive layer (2) disposed between the brightness enhancement sheet (3) and the light diffusion plate (1) so as to laminate the brightness enhancement sheet with the light diffusion plate.

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the adhesive layer of **Sekiguchi et al.** with the teaching of **Sakuramoto et al.** because such modification would prevent the films from shifting and foreign substances from coming into each interface (see at least column 7, lines 55-60).

Conclusion

21. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Hirakata (U.S. Patent Number 6,191,833) discloses an LCD device having a reflection film between prism sheet and LC panel. Kawamoto et al. (U.S. Patent Number 7,106,397) discloses an LCD device having a polarizing member.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lauren Nguyen whose telephone number is (571) 270-1428. The examiner can normally be reached on M-F, 7:30-5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Nguyen can be reached on (571) 272-4491. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Lauren Nguyen

February 7, 2007

JAMES A. REAGAN
PRIMARY EXAMINER